```
Bovine peptidyl-glycine alpha-amidating monoxygenase (PAM) as encoded by CDNA in lambda PAM-1, -5 and -6.
                                                                                                                                                                                       Peptidyl-glycine alpha-amidating monoxygenase; PAM; in vitro maturation; genetically engineered hormone; alpha-amidated derivative; lambda PAM-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="Basic"
897...915
/note="DNA encoding this region is absent from lambda
         TONHTASPRSPVMESPKKKNQQLKVGILHLGSRQKKI 64
                                                                                                                                                                                                                                                                                    /note="Coincides with peptide sequence information obtained from cyanogen bromide fragments"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'note="Potential site for N-linked glycosylation"
                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="Potential site for N-linked glycosylation"
                                                    Relskelnheigrtens 332
                                    REW'RDMEGDLQELHOS 90
                                                                                                                                                                                                                                                                                                                                                                                        /note="See note above"
225..226
                                                                                                                                                                                                                                                                                                                 'note="See note above"
                                                                                                                                                                                                                                                                                                                                   /note="See note above"
                                                                                                                                                                                                                                                                                                                                                      /note="See note above"
                                                                                                                                                                                                                                                                                                                                                                        /note="See note above"
                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                  wood standard; protein; 980 AA.
                                                                                                                                                                                                                                                                                                                                                                                                            /note="Basic"
378..379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               note-"Basic"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note="Basic"
                                                                                                                                                                                                                                                                                                                                                                                                                                                            432..433
/note="Basic"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'note="Basic"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'note="Basic"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="Basic"
                                                                                                                                                                                                                                                                                                                                                                                                                                /note="Basic"
                                                                                                                                                                                                                                                                  /note="Basic"
                                                                                                                                                                                                          Jambda PAM-5; Jambda PAM-6
                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                . 258
                                                                                                                                                                                                                                                                                                                                             . 228
                                                                                                                                                                                                                                                                                                                                                                                   339
                                                                                                                                                                                                                                                                                                                                                                                                                                          411..413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              761..763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    318..819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .936
                                                                                                                                         1997 - NOT 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                         Binding-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Binding-site
                                                                                                                                                                                                                              Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Reg ton
                                                                                                                                                                                                                                                          Region
                                                                                                                                                                                                                                                                                                                          Region
                                                                                                                                                                                                                                                                                                                                             Region
                                                                                                                                                                                                                                                                                                                                                                                  Region
                                                                                                                                                                                                                                                                                                                                                                                                   Region
                                                                                                                                                                                                                                                                                                                                                                                                                      Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Region
                                                                                                                                                                                                                                                                             Region
                                                                                                                                                                                                                                                                                                         Region
                                                                                                                                                                                                                                                                                                                                                               Region
```

```
The nucleotide sequences obtained from lambda PAM-1, -5 and -6 were used to construct a CDNA sequence and predict the amino acid sequence. AAP93323 is more than twice as large as either of the 2 bovine PAM proteins previously purified. The PAM protein includes a membrane spanning domain. It is used for the in vitro maturation and processing of genetically engineered hormones and bloactive peptides. A peptide hormone precursor having a Gly on the C-terminal is converted to an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 RSCEPATRVPEVWILSPLLRHGGHTQTQNHTASPRSPVMESPKKKNQQLKVGILHLGSRQ 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOK-1; Ste20 oxidant stress response kinase 1; protein kinase; Sps1; human; inflammation; cancer; atherosclerosis; ischaemia; transplant rejection; viral infection; reperfusion injury; diagnosis; therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 980;
                                                                                                                                                                                                          Peptidyl-glycine alpha-amidating monoxygenase enzyme - used for in vitro maturation and processing of genetically engineered hormones and bioactive peptide(s)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12.3%; Score 69.5; DB 10; 24.0%; Pred. No. 15; Live 22; Mismatches 32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pombo CM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ---fys11sk11gere-----dvvhvhkynpteka 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               62 KKIRIQLRSQVLG-REMRDMEGDLQELHQSNTGDKS 96
                                                                                                                                                                                                                                                                                    Fig 2-1 - 2-8; pp. 3/10-10/10; 38pp; English.
                                                                                                                 Rodriguez
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bonventre J, Force T, Kyriakis JM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW31603 standard; Protein; 426 AA.
                                                                           (GETH ) GENENTECH INC (MASS-UYJO).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97WO-US07739.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96US-0016774.
88WO-US03172
                                                                                                                 Keutmann HT, Schofield P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human protein kinase SOK-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11-MAY-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GEHO ) GEN HOSPITAL CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 24.0%
Matches 23; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                               alpha-amidated deriv.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1997-558902/51.
                                                                                                                                                   WPI; 1989-10001/13.
N-PSDB; AAN90693.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   980 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             W09742212-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-MAY-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13-NOV-1997.
 14-SEP-1988;
                                     15-SEP-1987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW31603;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW31603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
   ŏ
```

N-PSDB; AAT97341.

**SEST AVAILABLE COPY** 

23-MAR-1989.

WO8902460-A

ŝ

DNA encoding Ste20 oxidant stress response kinase protein - useful to develop products to treat, e.g. inflammatory response, cancer, atherosclerosis, transplant rejection or viral infection

Claim 3; Fig 1; 48pp; English.

This protein comprises human SOK-1, a novel member of the Sps1

C family of Ste20 homologues. SOK-1 (Ste20 oxidant stress reponse factor Nekappea and induces cell cycle arrest. It is activated by depletion of intracellular AFP stores, an important component of ischaemia, and is also activated by oxidant stress. SOK-1 is regulated by its noncatalytic C-terminal region. The amino acid cobtained from a human B cell cDNA library. SOK-1 polynucleotides, kinase inactive SOK mutants, biologically active cobtained from a human B cell cDNA library. SOK-1 polynucleotides, cobtained from a manne acid contained from a manne of SOK-1 and antibodies that specifically bind SOK are colliferative response, e.g. inflammatory response, cancer, atheroscletrosis or balloon angioplasty induced injury to blood converses, and pathological conditions associated with a converse, and pathological conditions associated with a converse. expression, e.g. transplant rejection, post ischemic injury and the response to viral infection. The products can also be used for detection, diagnosis and transgenic animal production. 

Sequence

26; 12.0%; Score 68; DB 18; Length 426; 25.0%; Pred. No. 7.4; tive 12; Mismatches 25; Indels Ouery Match
Best Local Similarity 25.0%
Matches 21, Conservative ò

-----1hssgkpadavkrqpr 354 13 VWILSPLLRHGGHTOTQNHTASPRSPVMESPKKKNQQLKVGILHLGSRQK---KIRIQLR 69 318 iwtfpptirpsphsklhkgta----g

5;

70 SQVLGREMRDMEGDLQELHQSNTG 93 ð

|| | : |:|:||:| 355 sqclstlvrpvfgelkekhkqsgg 378

Search completed: January 24, 2002, 16:37:51 Job time: 195 sec

BEST AVAILABLE COPY